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Monthly Activities Report of the Air Quality Bureau

July, 1978

1. Highlights:

A Joint Advisory Committee Interim Meeting for the Montana Air Pollution Study (MAPS) was held at Fairmont July 24-25 for the purpose of updating all of the committees on the most recent developments and to decide the future direction of the study.

2. Ambient Air Quality Network:

a. Standards Exceeded

SO_2 - Butte/Anaconda	No. of readings over 0.25	Highest 24-hr.	Highest 1-hr.
Hiway Jct.	13	0.11	1.08
Mill Creek	6	0.03	0.40
C-Hill	41	0.12	1.10
Lincoln School	21	0.10	0.75
NO_2 - Lincoln School		0.003	0.01

Hi-Vol Standards Exceeded for July

City	Station	Date	150ug/m^3	200 ug/m^3
Billings	Central Park E.	7/15	183	
Col. Falls	Anders	7/13	210	210
Col. Falls	Anders	7/25	311	311
Kalispell	Sherman	7/25	154	
Libby	Brown	7/25	188	
Three Forks	Kober	7/13	164	
Three Forks	Kober	7/25	255	255

b. Air Stagnation Advisories - None in July

c. Laboratory Status

Total Determinations for month	1176
Total Samples for Month	226
Total Determinations for Year	7503
Total Samples for Year	2796

d. Other - None

3. Permits and Tax Credits:

Construction Permits - Applied For

Wickens Brothers, Custer Co., gravel crusher, asphalt hot mix plant
Robert Tindall, Meagher Co., hot mix asphalt plant
Hilde Construction Co., Rosebud Co., portable gravel crusher
Krause Lumber, Kalispell, tepee burner
Montana Dept. of Highways, Glacier Co., hot mix asphalt plant
Hilde Construction, Roosevelt Co., gravel crusher and hot mix plant
R. J. Studer & Sons, Fergus Co., gravel crusher
R. J. Studer & Sons, Fergus Co., asphalt hot mix plant
Gus M. Albert, Valley Co., portable hot mix asphalt plant
Peter Kiewit Sons, Big Horn Co., hot mix asphalt plant
Lienco Cedar Products, Troy, tepee burner
Meyer Construction, Broadwater Co., asphalt hot mix plant
Meyer Construction, Broadwater Co., gravel crusher
Evans Products, Missoula, replacement of sander
Evans Products, Missoula, baghouse added to sander, $43,000
Zook Brothers, Ravalli Co., asphalt plant

Construction Permits - Approved

Great Western Sugar, Billings, fly ash collectors
Empire Sand & Gravel, Stillwater Co., portable asphalt batch plant
Empire Sand & Gravel, Stillwater Co., portable gravel crusher
Meyer Construction, Chouteau Co., hot mix asphalt plant
Meyer Construction, Sweet Grass Co., drum dryer
Meyer Construction, Sweet Grass Co., gravel crusher
Wickens Brothers, Custer Co., gravel crusher, asphalt hot mix plant
Hilde Construction, Roosevelt Co., gravel crusher and hot mix plant
Mont. Dept. of Highways, Glacier Co., hot mix asphalt plant
Hilde Construction Co., Rosebud Co., portable gravel crusher
R. J. Studer & SOns, Fergus Co., gravel crusher
R. J. Studer & Sons, Fergus Co., asphalt hot mix plant
Gus M. Albert, Valley Co., portable asphalt hot mix plant
Lienco Cedar Products, Troy, tepee burner

c. Tax Credit

Twenty applications from Exxon, Cenex and Marty Perga are presently being reviewed.

4. Variance Status:

a. Current

ASARCO, East Helena, SO_2 from blast furnace baghouse stacks, request will probably be scheduled for November Board meeting.

Anaconda Aluminum, Columbia Falls, F^- and particulate, hearing scheduled for September 8, 1978.

b. New - None in July

5. Enforcement Actions:

a. Citations - None

b. Notice of Violation

Evans Products, Missoula, sanderdust emissions, Rule S1460

c. Order To Take Corrective Action

Evans Products, Missoula, sanderdust emissions, final date December 30, 1978, (0780714-JB-1) NOV and Order issued on sanderdust cyclone on roof of plywood plant

d. Court Actions - None

6. Tepee Burner and Open Burning:

Tepee burners

No. at start	41
New starts	0
Shutdowns	0
No. at end	41

Open burning permits

Kalispell Office	54	Sanders County	59
Cascade County	3	Yellowstone County	30
Lake County	14	Rest of State	394
Missoula County	4	Total	558

7. Source Tests Performed:

a. Agency source tests - None

b. Non-agency source tests

Montana Department of Highways, portable Barber-Green asphalt plant, north of Wolf Point, test performed by EERC. Data not available.

Helena Sand and Gravel, hot mix plant located in Helena Valley, tested for NSPS compliance. Data not yet available. Visible emissions in excess of 20%.

MERDI, Butte, source-tested new type of coal burning stove.

Hoerner-Waldorf, Missoula, 18 particulate tests on recovery boilers, lime kilns, smelt tanks, hog fuel boiler.

8. Field Investigations:

Crystal Oil Company, Wolf Point, investigation
Federal Bentonite, Glasgow, plant under construction
American Colloid, Malta, plant under construction
Phillips Petroleum, Cut Bank, oil sludge pit fire,

8. Field Investigations, Cont.

Rite-Way Asphalt, Butte, visible emissions, in compliance
Plum Creek Plywood, Columbia Falls, dryer emission, documentation, in compliance
DuPuis Lumber, Polson, boiler documentation, in compliance
Krause Mill, Kalispell, inspection
Plum Creek, Pablo, documentation of tepee burner, in compliance
Lake County Landfill, Polson, inspection of woodwaste area
Mission Valley Concrete, Harding's, inspection of crusher, in compliance
Lake County Landfill, Woods Bay, burning in dump, referred to Solid Waste Bureau in Helena
Polebridge, Moose City, inspection for wind system sites
C & C Plywood, Kalispell, documentation of veneer dryer emission, in compliance
Klingler Lumber, Kalispell, documentation

9. Complaints:

Conoco, Billings, odor, referred to regional engineer
General Constructors, Anaconda, limestone dust, investigation
ASARCO, East Helena, breathing problems from SO_2, investigation
Plum Creek, Columbia Falls, trucks hauling on service road creating dust
Burning barrel, Columbia Falls, asked to cease immediately
The Anaconda Company, Anaconda, smoke from smelter
Montana Sulphur and Chemical Co., Billings, odors
Conoco, black plume, caused by split tube in process heater
Great Western Sugar, Billings, odors, investigated
Billings Rendering Company, Billings, odors, referred to Yellowstone County

10. Data Processing Services:

a. Ambient Data Summary - See attached for June, 1978

b. Emission Inventory Status

All updates were tested and a list of errors given to respective persons submitting updates. Work is continuing.

c. Prevention of Significant Deterioration

Worked on a new air quality rule incorporating the federal prevention of significant deterioration regulations into a state rule.

d. Modeling

Diffusion model was performed on slag pits of Stauffer Chemical Co. for a fluoride emission rate that would meet the ambient standards.

Continued to revise the HIWAY model so that it can be used in Missoula.

11. Environmental Impact Statements:

a. Agency Impact Determinations - None in July

b. Other Agency EIS's Reviewed:

MONTCO mine, State Lands Department, helped design a background/baseline network.

12. Status of Studies, Contracts and Reports:

Poplar River Study continues to operate well. Review panel was set up to review work done to date and assess predicted impacts on the area due to air pollution. Draft on first cut report is expected in September.

Flathead Study continues to operate with partial equipment. Air quality samplers have not been received.

MAPS - meteorology studies operating well
- Historical Emission Inventory contract with HRA & MRI to perform final feasibility analysis is 50% complete, due August 15, 1978.
- Update and Improvement, Phase I, 99% complete, due July 31, 1978.
- Real Time Inventory will not be expanded
- Health Effects, Montana Foundation for Medical Care is collecting clinical data on study and control groups

Butte Emission Inventory, PEDCo, 50% complete, preliminary report due August 7, 1978.

ASARCO-Troy, background sampling continues, due August 31, 1978

Missoula TSP, data collected, awaiting PEDCo report

13. Schools and Training: - None in July

14. Public Hearings and Meetings:

a. Public Hearings Held

Board of Health and Environmental Sciences, open burning rule

b. Meetings Attended:

EPA and Anaconda Company, Denver, regarding proposed federal emission standard for smelter
State Lands and MONTCO, Helena, discuss baseline air monitoring program near proposed strip mine
City-county - Anconda Company, Butte, SIP revision
Anaconda Company, Butte, data acquisition
MAPS, Fairmont Hot Springs
Smoke management, Missoula
Historical Emission Inventory, MAPS, Missoula
Forest Service and Bureau of Land Management, Las Vegas, to formulate training course for federal land managers to be given in January

14. Public Hearings and Meetings, Cont.

Helena Sand and Gravel, Helena, pre-conference test
State Department, Saskatchewan and Canada Environmental Departments, Poplar River power plants
Poplar River, Helena, power plant effects on air quality
Cascade County Health Department, SIP revisions
Flathead River Basin Study, Kalispell
MAPS, Helena, data acquisitions systems
Highway Department, Helena, Impact Evaluation Group

c. Intra-staff meetings

rule changes
proposed legislation
SIP revisions
staff meetings
MAPS staff meetings
MAAQS staff meetings

15. Public Information Requests:

Rules	11
Clean Air Act	6
General Information	13
Open Burning Pamphlets	55

16. N.A.

17. Other - None

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

June 1978

Pollutant: Miscellaneous Indicators Units:

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Fluoride Papers -	Mg/sq. cm./30 days					
144	DehiBons Mt Box Flathead Co			***-			
	Anaconda South Flathead Co			***-			
	Glacier Park #1 Glac.Nat.Park			***-			
	Glacier Park #2 Glac.Nat.Park			***-			
	Glacier Park #9 Glac.Nat.Park			***-			
	Fluorids Plates -	Mg/sq. cm./30 days					
144	Anaconda South Flathead Co			***-			
	Trailer-NAAC Flathead Co			***-			
	Glacier Park #1 Glac.Nat.Park			***-			
	Glacier Park #2 Glac.Nat.Park			***-			
	Glacier Park #9 Glac.Nat.Park			***-			

*** - data unavailable at time of report

Pollutant: Miscellaneous Bubbler Data Units: ppm

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Sulfur Dioxide						
143	Scobey						
	Daniels Co	0.0	0.0	0.0	0.0	6	
	Fort Peck						
	McCone Co	0.0	0.0	0.0	0.0	6	
	Lame Deer						
	Rosebud			**-			
	Nitrogen Dioxide						
143	Scobey						
	Daniels Co	0.0	0.0	0.0	0.0	6	
	Fort Peck						
	McCone Co	0.0	0.0	0.0	0.0	6	
	Lame Deer						
	Rosebud Co			**-			

** - No valid samples submitted

Pollutant: Miscellaneous Indicators Units

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Dustfall - tons/sq. mi.						
141	Mountain States Great Falls	31.29	31.29	80.64	17.34	4	
	Fire Sta #1 Great Falls	19.83	20.99	31.17	14.23	4	
	Sulfation Rate - mg 03/100sq. cm.						
140	3/8 mi. NE Coop Billings	0.900	3.340	4.350	2.172	5	
	E. of Laurel Billings	0.670	2.800	2.800	1.354	5	
	Hi-Ball Trucking Billings	0.760	1.890	1.890	1.288	6	
141	Stock Car Track Great Falls	0.113	0.184	0.498	0.091	5	
	Phillips Ref W1 Great Falls	0.101	0.354	0.543	0.195	3	
	Phillips Ref. E Great Falls	0.248	0.515	0.560	0.290	5	
142	Microwave East Helena	0.120	0.400	0.600	0.170	5	
	202 E.Pacific East Helena	0.260	0.400	1.170	0.266	5	
	East Stack Sta East Helena	0.120	0.590	1.060	0.312	6	
	Broudy Ranch East Helena	0.070	0.460	0.480	0.180	6	
	525 Prickly Pear East Helena	0.120	0.130	0.130	0.110	3	

Pollutant: Total Suspended Particulate Units: ug/cu meter

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
140	Morton-Decker						
	Big Horn Co.			**-			
	Warren Ranch						
	Big Horn Co.	30	68	108	18.7	6	
	Lockwood School Billings	94	135	166	54.6	6	
	KGHL Billings	45	87	87	35.9	6	
	City Hall Billings	87	175	175	77.9	6	
	Grand Ave. Sch. Billings	76	171	171	60.9	6	
	Central Park E. Billings	143	143	143	88.7	1	
	Central Park W. Billings	102	102	102	66.2	1	
	Laurel Jr. High Laurel	45	78	106	41.2	6	
141	Hospital Roof Great Falls	49	121	121	44.6	6	
	Fire Sta #1 Great Falls	91	123	151	70.2	6	
142	Hiway Jct Anaconda	36	94	161	28.1	6	
	Lincoln School#1 Anaconda	65	65	65	33.2	3	
	Lincoln School#2 Anaconda	77	77	77	27.8	4	
	McKinley Res Granite Co.	59	267	267	58.2	6	

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MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

June 1978

Pollutant: Total Suspended Particulate Units: ug/cu meter

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
142	Dr. Canty Res Butte	54	54	54	49.0	1	
	Greeley School Butte	94	195	233	83.7	6	
	Gilman Constr. Butte						
	Hebgen Park #1 Butte	133	133	133	48.5	3	
	Hebgen Park #2 Butte	102	106	106	54.4	3	
	Richer Res Silver Bow Co	28	53	53	19.0	6	
	Tierney Res Silver Bow Co	23	68	89	23.8	6	
	Microwave Jefferson Co.	40	52	64	23.8	6	
	212 E Pacific Lewis & Clk	170	170	192	93.3	6	2 exc.Fed.Sec.St
	Kober Res Three Forks	102	226	309	66.5	6	
	Cogswell Bldg Helena	88	234	234	61.3	6	
143	Glendive Dawson Co.	14	28	42	15.8	6	
	Lane Oeer Rosebud Co.						
	Fort Peck McCone Co	20	41	53	12.9	6	
	Broadus Powder Riv.Co	34	51	51	15.9	6	
	SN Site Colstrip	42	42	53	32.0	6	

* - Site no longer submitting data
**- No valid samples submitted

Pollutant: Total Suspended Particulate Units: ug/cu meter

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
143	Border Site Scobey						
144	Anders Res Col.Falls	33	33	65	12.5	6	1 exc.Mt.Pri.Std
	Courthouse Roof Missoula	208	426	467	138.2	6	2 exc.Fed.Sec.St
	Lion's Park Missoula	143	390	390	97.5	6	
	JS Field Missoula Co.	131	676	676	119.1	6	
	Hoerner Wald #1 Missoula Co.	165	165	180	59.4	6	6 exc.Fed.Sec.St
	Hoerner Wald #2 Missoula Co	55	144	144	30.7	6	
	Hoerner Wald #3 Missoula Co.	57	135	135	32.6	6	
	Kalispell Flathead Co.	58	86	86	24.4	6	
	Troy-Brown Lincoln Co.	225	411	411	111.9	6	1 exc.Mt.Pri.Std
	Troy-Sampson Lincoln Co	93	247	247	77.1	6	
	Libby-Brown Lincoln Co	42	42	171	13.5	6	
	Courthouse Lawn Missoula	238	394	394	134.5	6	10 exc.Mt.Pri.Std 2 exc.Fed.Sec.Std

Pollutant: Miscellaneous Continuous Data Units ppm

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Carbon Monoxide						
140	27th & Montana Billings			***			
14.	10th Ave South Great Falls	7.10	24.50	24.50	2.621	6	
142	Alpine West Butte	1.80	12.50	14.00	0.814	6	
144	Malfunction Jct Missoula			***			
	Lion's Park Missoula			***			
	Hydrocarbons						
140	27th & Montana Billings			***			
142	Hebgen Park Butte	4.50	4.50	4.50	1.825	4	
144	Lion's Park Missoula	20.50	20.50	20.50	2.939	6	
	Nitrogen Dioxide						
140	27th & Montana Billings			***			
	Central Park Billings	0.04	0.04	0.04	0.011	1	
142	Hebgen Park Butte			***			
144	Lion's Park Missoula			***			

*** - Data unavailable at time of report

Pollutant: Miscellaneous Continuous Data Units: ppm

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Ozone						
140	27th & Montana Billings			***			
142	Hebgen Park Butte	0.07	0.07	0.07	0.035	3	
144	Lion's Park Missoula			***			
	Sulfur Dioxide						
140	27th & Montana Billings			***			
	Central Park Billings	0.05	0.05	0.05	0.002	1	
	Laurel Farm Billings	0.42	0.66	0.66	0.039	6	
142	East Stack East Helena	0.22	0.48	0.66	0.007	6	
	Microwave East Helena	0.42	0.42	1.00	0.008	6	
	Broady Ranch East Helena	0.09	0.80	0.88	0.010	6	
	C-Hill Anaconda			***			
	Hiway Jct Anaconda	0.00	2.00	2.00	0.049	6	
	Mill Creek Anaconda	0.0	1.08	1.68	0.028	6	
	Lincoln School Anaconda	0.0	1.21	1.21	0.018	3	